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Reply to Office Action of March 8, 2004

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REMARKS

The above Amendments and these Remarks are submitted under 35 U.S.C. § 132 and 37 C.F.R. § 1.111 in response to the Office Action mailed March 8, 2004.

Summary of the Examiner's Action and Applicants' Response

The Examiner stated that Claims 5-6, 8-10, 12-17, 19, 20, 22-25, 32-33, 35-37, 39-44, 46, 47, and 49-52 were objected to, but would be allowed if rewritten to include all the limitations of the base claim and any intervening claims. The Examiner objected to Claims 3 and 30 because of informatics. The Examiner has rejected Claims 1, 2, 28, and 29 under U.S.C. §102(c) as being anticipated by Wong (U.S. Patent No. 6,570,883). The Examiner has rejected Claims 3 and 30 under 35 U.S.C. 103(a) as being obvious based on Wong in view of Aimoto, et al. (U.S. Patent No. 6,144,636). Claims 4, 18, 31 and 45 have been rejected under 35 U.S.C. 103(a) as being obvious based on Wong in view of Aimoto, et al. and in further view of Chapman, et al. (U.S. Patent No. 6,628,609). Claims 7 and 34 have been rejected under 35 U.S.C. 103(a) as being obvious based on Wong in view of Aimoto, et al., and Chapman, et al. and further in view of Vaid, et al. (U.S. Patent No. 6,292,465). The Examiner has rejected Claims 11 and 38 under 35 U.S.C. 103(a) as being obvious based on Wong in view of Aimoto, et al. and in further view of Vaid, et al. Claims 21 and 48 have been rejected under 35 U.S.C. 103(a) as being obvious based on Wong in view of Aimoto, et al. and in further view of Cohen (U.S. Publication No. 2002/0097736). In this amendment, Claims 3 and 30 have been amended. Claims 1-25, and 28-52 are pending.

Response to Objections to Claims 3 and 30

The Examiner objected to Claims 3 and 30 because of informatics regarding terms in parenthesis. In response, Applicants have amended Claims 3 and 30 accordingly to reword the claim in order to eliminate the parenthesis. Applicants respectfully request that the objections to Claims 3 and 30 be withdrawn.

Response to Rejection of Claims 1, 2, 28 and 29 under 35 U.S.C. §102(e)

The Examiner stated that Wong discloses a bandwidth scheduler, identified as 22 in FIG. 2, located before any queue, identified as elements 23-25, of the switch 1 shown in FIG. 1. Applicants respectfully disagree. Applicants respectfully submit that Wong shows in FIGs. 1 and 2 and

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discloses in the specification that the scheduler 22 resides in port D2 and that elements 23-25 denote "a plural of queues storing packet flows fed to port D2." (Col. 2, lines 47-49) Applicants respectfully submit that Wong teaches a scheduler in port D2 located after queues 23-25 and, therefore, does not disclose a bandwidth scheduler located before any queues, as claimed in Claim 1 (and the corresponding apparatus Claim 28). Claim 2 depends from Claim 1 and is respectfully submitted as not being anticipated for the same reasons as above for Claim 1. Claim 29 depends from Claim 28 and is respectfully submitted as not being anticipated for the same reasons as above for Claim 28.

Response to Rejection of Claims 3 and 30 under 35 U.S.C. §103(a)

The Examiner stated that, although Wong does not disclose that the data packets contain information about flow identity, Aimoto, et al. teaches an internal cell format having output port and traffic class information. The Examiner concluded that Claims 3 and 30 would be obvious to one skilled in the art based on the combined teachings of Wong and Aimoto, et al. Applicants respectfully disagree. Applicants respectfully submit that Wong does not teach or suggest a bandwidth scheduler located before any queues, as claimed in Claim 1 (and the corresponding apparatus Claim 28). Claim 3 depends from Claim 2 and is respectfully submitted as not being obvious based on Wong for the same reasons as above for Claim 2. Claim 30 depends from Claim 29 and is respectfully submitted as not being obvious based on Wong for the same reasons as above for Claim 29. Applicants respectfully submit that Aimoto, et al. does not teach or suggest the method for bandwidth scheduling as claimed in Claim 3 (and the corresponding apparatus Claim 30). For the above reasons, Applicants respectfully submit that Claim 3 (and the corresponding apparatus Claim 30) are not obvious based on the combination of Wong and Aimoto, et al.

Response to Rejection of Claims 4, 18, 31, and 45 under 35 U.S.C. §103(a)

Regarding Claims 4 and 31, the Examiner stated that, although Wong and Aimoto, et al. do not disclose that a limit is set on the maximum accepted bandwidth per port, Chapman, et al. discloses that each port is assigned a maximum bandwidth. The Examiner concluded that Claims 4 and 31 would be obvious to one skilled in the art based on the combined teachings of Wong, Aimoto, et al., and Chapman, et al. Applicants respectfully disagree. Claim 4 depends from Claim 3 and is respectfully submitted as not being obvious based on Wong, and Aimoto, et al. for the same reasons as above for Claim 3. Claim 31 depends from Claim 30 and is respectfully submitted as not

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being obvious based on Wong, and Aimoto, et al. for the same reasons as above for Claim 30. Applicants respectfully submit that Chapman, et al. does not teach or suggest the method for bandwidth scheduling as claimed in Claim 4 (and the corresponding apparatus Claim 31). For the above reasons, Applicants respectfully submit that Claim 4 (and the corresponding apparatus Claim 31) are not obvious based on the combination of Wong, Aimoto, et al., and Chapman, et al.

Regarding Claims 18 and 45, the Examiner stated that, although Wong and Aimoto, et al. do not disclose that if one traffic class is particularly active, it is forced to give up part of its accepted bandwidth, Chapman, et al. discloses an example of such control. The Examiner concluded that Claims 18 and 45 would be obvious to one skilled in the art based on the combined teachings of Wong, Aimoto, et al., and Chapman, et al. Applicants respectfully disagree. Claim 18 depends from Claim 3 and is respectfully submitted as not being obvious based on Wong, and Aimoto, et al. for the same reasons as above for Claim 3. Claim 45 depends from Claim 30 and is respectfully submitted as not being obvious based on Wong, and Aimoto, et al. for the same reasons as above for Claim 30. Applicants respectfully submit that Chapman, et al. does not teach or suggest the method for bandwidth scheduling as claimed in Claim 18 (and the corresponding apparatus Claim 45). For the above reasons, Applicant respectfully submits that Claim 18 (and the corresponding apparatus Claim 45) are not obvious based on the combination of Wong, Aimoto, et al., and Chapman, et al.

Response to Rejection of Claims 7 and 34 under 35 U.S.C. §103(a)

The Examiner stated that Wong, Aimoto, et al., and Chapman, et al. disclose the method of Claim 7 (and the corresponding apparatus Claim 34) except for including a maximum accepted bandwidth per class. The Examiner stated that Vaid, et al. teaches a traffic policy wherein a limit is established on the total bandwidth used by a class. The Examiner concluded that Claims 7 and 34 would be obvious to one skilled in the art based on the combined teachings of Wong, Aimoto, et al., Chapman, et al., and Vaid, et al. Applicants respectfully disagree. Claim 7 depends from Claim 4 and is respectfully submitted as not being obvious based on Wong, Aimoto, et al., and Chapman, et al. for the same reasons as above for Claim 4. Claim 34 depends from Claim 31 and is respectfully submitted as not being obvious based on Wong, Aimoto, et al., and Chapman, et al. for the same reasons as above for Claim 31. Applicants respectfully submit that Vaid, et al. does not teach or suggest the method for bandwidth scheduling as claimed in Claim 7 (and the corresponding apparatus Claim 34). For the above reasons, Claim 7 (and the corresponding apparatus Claim 34)

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are respectfully submitted as being not obvious based on the combination of Wong, Aimoto, et al., Chapman, et al., and Vaid, et al.

Response to Rejection of Claims 11 and 38 under 35 U.S.C. §103(a)

The Examiner stated that Wong and Aimoto, et al. disclose the method of Claim 11 (and corresponding apparatus of Claim 38) except for including that each traffic class is guaranteed a bandwidth up to a limit. The Examiner stated that Vaid, et al. teaches a traffic policy wherein a minimum bandwidth is guaranteed for a class. The Examiner concluded that Claims 11 and 38 would be obvious to one skilled in the art based on the combined teachings of Wong, Aimoto, et al., and Vaid, et al. Applicants respectfully disagree. Claim 11 depends from Claim 3 and is respectfully submitted as not being obvious based on Wong, and Aimoto, et al. for the same reasons as above for Claim 3. Claim 38 depends from Claim 30 and is respectfully submitted as not being obvious based on Wong, and Aimoto, et al. for the same reasons as above for Claim 30. Applicants respectfully submit that Vaid, et al. does not teach or suggest the method for bandwidth scheduling as claimed in Claim 11 (and the corresponding apparatus Claim 38). For the above reasons, Claim 11 (and the corresponding apparatus Claim 38) are respectfully submitted as not being obvious based on the combination of Wong, Aimoto, et al., and Vaid, et al.

Response to Rejection of Claims 21 and 48 under 35 U.S.C. §103(a)

The Examiner stated that, although Wong and Aimoto, et al. do not disclose that flows are grouped together by means of a hash function into a set of flow groups, Cohen discloses grouping flows to a processor together by means of a hash function into a set of groups. The Examiner concluded that Claims 21 and 48 would be obvious to one skilled in the art based on the combined teachings of Wong, Aimoto, et al., and Cohen. Applicants respectfully disagree. Claim 21 depends from Claim 3 and is respectfully submitted as not being obvious based on Wong, and Aimoto, et al. for the same reasons as above for Claim 3. Claim 48 depends from Claim 30 and is respectfully submitted as not being obvious based on Wong, and Aimoto, et al. for the same reasons as above for Claim 30. Applicants respectfully submit that Cohen does not teach or suggest the method for bandwidth scheduling as claimed in Claim 21 (and the corresponding apparatus Claim 48). For the above reasons, Claim 21 (and the corresponding apparatus Claim 48) are respectfully submitted as not being not obvious based on the combination of Wong, Aimoto, et al., and Cohen.

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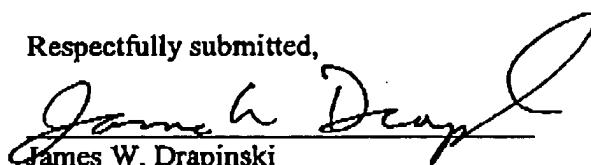
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Conclusion

For the above reasons, Applicants respectfully submit that all pending claims, Claims 1-25, and 28-52, in the present application are in condition for allowance. Such allowance is respectfully solicited.

If a telephone conference would expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (650) 739-2800.

Respectfully submitted,


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July 2, 2004
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